

EATON'S OF CANADA

Owners Power Tool Reference Manual

for

EDGERITE, TECOMASTER HOMECRAFT, TECOMASTER PROFESSIONAL
PORTABLE POWER TOOLS

- **FOR YOUR SAFETY & PROTECTION** — Each power tool is provided with a 3-wire power supply cord with a 3-prong plug for use with a grounded power outlet.

The tool should be used in combination with an approved grounding type receptacle. If in doubt as to whether the receptacle is the correct one, or is properly grounded — consult a licensed electrician.

- **READ THE NAME & DATA PLATE** — The name plate tells you the VOLTAGE and the type of current (AC or DC) for which the tool is wired. The AMPERE tool rating will aid you in the selection of extension cord.
- **EXTENSION CORDS** — Should be of the 3-wire type with approved connector caps to insure the continuity of the tool grounding wire, and should be of proper gauge to maintain adequate voltage at the tool.

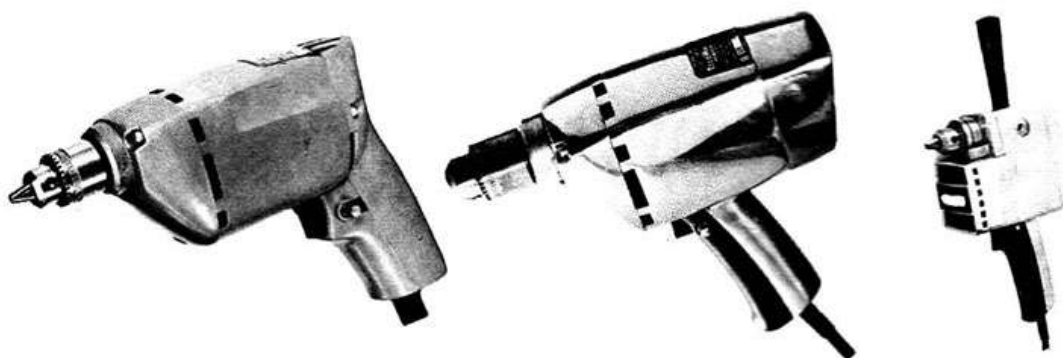
RECOMMENDED EXTN. CORD SIZES FOR USE WITH PORTABLE POWER TOOLS

Name- plate Amperes	CORD LENGTH IN FEET															
	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400
1	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
2	16	16	16	16	16	16	16	16	16	14	14	14	14	14	14	12
3	16	16	16	16	16	16	14	14	14	14	12	12	12	12	12	12
4	16	16	16	16	14	14	14	12	12	12	12	12	12	10	10	10
5	14	14	14	14	14	14	12	12	12	12	10	10	10	10	10	8
6	14	14	14	14	14	12	12	12	10	10	10	10	10	8	8	8
7	14	14	14	14	12	12	12	10	10	10	10	8	8	8	8	8
8	14	14	14	14	12	12	10	10	10	10	8	8	8	8	8	8
9	14	14	14	12	12	10	10	10	8	8	8	8	8	8	8	8
10	14	14	14	12	12	10	10	10	8	8	8	8	8	8	8	
11	12	12	12	12	10	10	10	8	8	8	8	8	8	8		
12	12	12	12	12	10	10	8	8	8	8	8	8	8			
13	12	12	12	12	10	10	8	8	8	8	8	8				
14	10	10	10	10	10	10	8	8	8	8	8					
15	10	10	10	10	10	8	8	8	8	8						

Note: Wire sizes shown above are A.W.G. (American Wire Gauge)

ALL ELECTRIC POWER TOOLS ARE DESIGNED FOR SPECIFIC USE — Light duty tools for small, intermittent jobs — heavy and medium duty tools for large jobs and continuous use. Your power tool will do the job it was designed for and provide constant satisfaction, providing—that you use properly sharpened blades or bits. Misuse, and hard treatment will shorten the life of the tool, and may even cause motor failure.

POWER DRILLS



GENERAL INFORMATION — Use cutting oil in drilling steel, and turpentine or coal oil in drilling aluminum. This cools the bits, clears the chips, maintains bit sharpness and increases drilling efficiency. Use sharp drill bits only.

DO NOT enlarge the diameter of holes by using side thrust on the drill bit.

1/4" — DRILLS operate at no load speeds of 1900 to as high as 5000 r.p.m. The commonly used speeds are in the 1900 to 2400 range for mild steels; and will operate satisfactorily when drilling in wood using bits up to 1/2" diameter.

3/8" — DRILLS operate at medium speeds of 700 to 1200 r.p.m. no load, so that the larger drill bit can cut properly. Within any given design range the 3/8" drill has greater torque output at the chuck than a 1/4" drill. The 3/8" drill should, therefore, be used for tougher jobs instead of a 1/4" drill.

1/2" — DRILLS operate at low speeds of 350 to 600 r.p.m. no load. They are best suited for heavy work in steel or wood and should be used when using carbide tipped masonry drill bits. Better results are obtained with 1/2" drills when using such accessories as hole saws, electricians bits, and self feed bits.

Ampere ratings (input) under normal circumstances should read between 2.0 and 2.5 Amps. at 115 volts on a 1/4" or 3/8" drill, and between 3.0 and 4.5 amps on a 1/2" drill to assure economical operation of the tool.

DRILL FEATURES

1. All Eaton's drills (1/4", 3/8" & 1/2") are equipped with a "switch lock" which is used for continuous drilling when using a drill stand.
 - (a) To engage — Depress switch fully — push in button located at left side of switch handle and hold — then release switch.
 - (b) To release switch lock — simply depress switch and release.
2. Reverse rotation — All Eaton's 1/2" drills are equipped with an integral reverse rotation switch. Simply by rotating Red Button on the main switch 180° clockwise you may easily change the drill rotation.

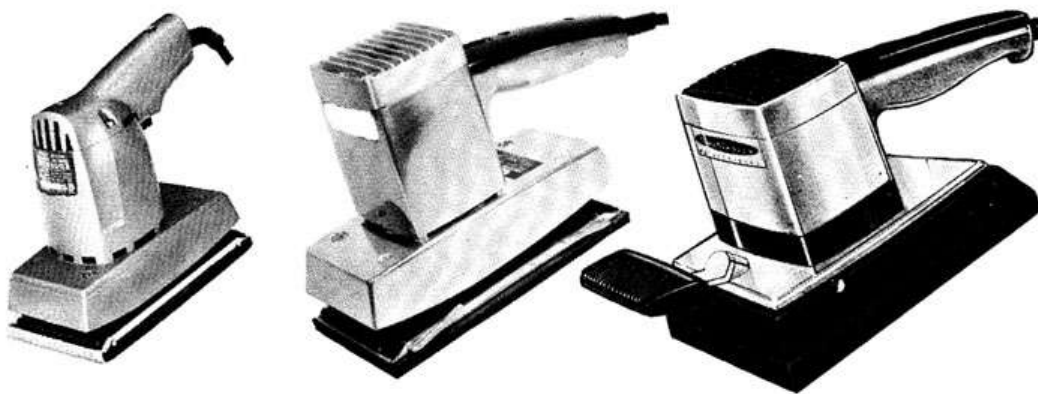
DO NOT CHANGE DIRECTION OF ROTATION WHEN THE DRILL IS IN OPERATION.

3. Multiple speeds — The Tecomaster Professional 1/4" and 3/8" drills are equipped with an integral 2-speed switch. The lower speed is obtained by depressing the switch slowly about half way, at which point a slight click will be felt, indicating that the speed reducing mechanism is engaged.

THE LOWER SPEEDS ARE BEST SUITED IN — Starting holes

- Drilling in concrete
- Drilling with hole saws
- Using buffing attachments

ORBITAL SANDERS



GENERAL INFORMATION:

Eaton's Orbital Sanders are quality products constructed with these purposes in mind:

- Maximum utility permitting flush sanding.
- Simplicity of operation, made possible by perfect balance, light weight construction, out of the way cord.
- Simplicity of maintenance, including one-spot lubrication.

Ampere ratings (input) under normal circumstances should read between 2.2 and 3.0 Amps at 115 volts on a Orbital sander to assure economical operation of the tool.

SELECTION OF ABRASIVES

The Eaton's Orbital Sanders can fulfill all your sanding requirements. The effectiveness depends on your selecting and using the right abrasive materials:

- Abrasive papers and cloths are available in grits ranging from very coarse 36 grit to extra fine 320 grit. The coarse grits remove material rapidly and produce a rough surface. Fine grits produce a very smooth surface and remove material slowly. First, use a coarse (36 or 60) grit to remove material fast. Then use a medium (80 or 100) grit to remove rough sanding marks. Finish with a fine or extra fine (150 to 320) grit, depending on finish desired.

To remove old finishes use open coarse abrasives. For rubbing or polishing, fold a soft cloth and attach to sander in the same manner as paper.

In general, paper backed abrasives are most satisfactory and economical for dry sanding. Cloth backed abrasives should be used where sharp edges prevail, as on metal work which will destroy ordinary paper. Aluminum oxide abrasives are best for power equipment and are recommended for use on metals and wood.

Silicon Carbide paper should be used for extremely hard woods, marble, stone, glass, slate and ceramics.

Garnet and flint abrasives do not wear well on power equipment, but, if used are best suited for general sanding of wood.

Permanent Abrasive Sheets (particles of Tungsten Carbide furnace—brazed on to thin steel) will outlast other abrasives many, many, times. This type is especially recommended for removal of paint and varnish. The simple use of a wire brush or of a paint thinner will remove built-up waste material.

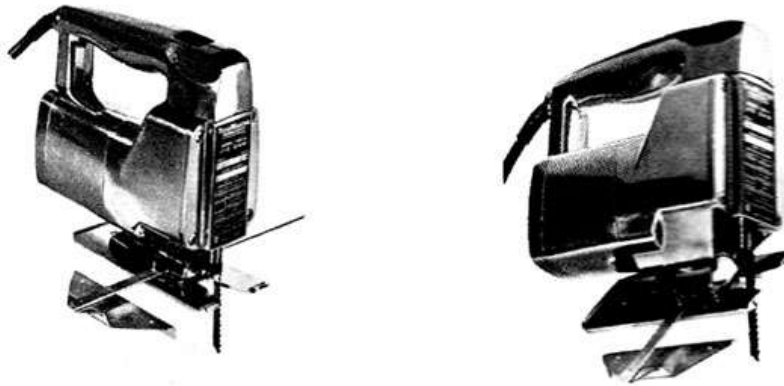
USE AND MAINTENANCE

To attach abrasives raise clamp bar levers on left side of Platen Assembly, one at a time. Insert ends of paper and lower lever, one at a time.

For most horizontal sanding operations, one hand operation is easiest. **Start Sander before applying it to the work.** Hold firmly but do not strain — use only the weight of your arm and the sander for pressure. Guide the machine over the working surface using long, slow, forward and back strokes. Do not let sander dwell in one spot.

Every 200 hours the Drive belt mechanism should be cleaned of dust and dirt. Be sure air holes are kept free from dirt accumulation. Occasionally add a few drops of oil to the commutator end shaft bearing.

JIG AND SABRE SAWS



GENERAL INFORMATION:

Precision trimming, intricate patterns, scroll and jig-saw work are just some of the jobs Jig and Sabre Saws can do, be it in commercial, professional or do-it-yourself applications. This tool is extremely versatile and with the right selection of the blade you can cut wood, metal, composition board, rubber, leather, plastics and many other materials. They combine the best features of a Rip or Crosscut saw, Band saw, Keyhole saw, Jig and Hack saw.

The Jig and Sabre Saws are designed for comfort and balance & ease of use. Anti-vibration mechanism and sculptural handle give maximum control to the user. Blades may be changed by simply loosening one slotted screw and slipping out the old blade. Flush cutting to a wall (using special flush cutting blade) or at a right angle within $\frac{5}{8}$ " horizontally along a wall is made possible by a special 2 position base. A special model featuring a tilting base for bevel cutting to 45° left, 30° right is also available.

Ampere ratings (input) under normal circumstances should read between 2.2 and 3.0 Amps at 115 volts on a Jig or Sabre saw to assure economical operation of the tool.

SELECTION OF BLADES:

Satisfactory performance of your Sabre Saw depends upon careful selection of the correct type of blade for the particular work to be done. This will also give less blade breakage. A wide selection of blades is available at your Eaton's store.

For smoothness of cut use 3" blades for wood up to 1" thick and 4" blades for wood up to 2" thick. High Speed Steel blades must be used for abrasive materials such as plywood, masonite and plastics and are recommended for hardwoods.

USE AND MAINTENANCE

Let the tool do the cutting, use only a slight downward thrust. Pushing the machine too much will slow down the speed of cutting, cause blade breakage, as well as a rough cut.

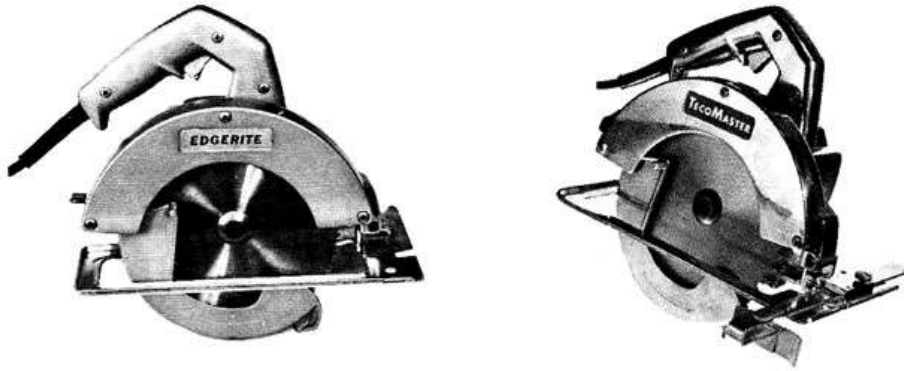
Turn on the motor before starting the cut and guide the saw forward into the work, keeping the saw flat on the material. Be sure that the material being cut is fastened firmly.

When using the Saw as a stationary unit, secure the unit in a vise by the shoe only. To make pocket cuts use only 3" blades and make sure the shoe is in its forward position, rest both prongs on the work, turn on the motor and slowly lower blade into work.

Rip and Circular Guide available as an accessory.

A few drops of oil should occasionally be applied to the plunger, felt brushes, as well as the slider block in the plunger housing should be checked for wear from time to time. Every 100 or 200 hours the grease in the gear housing should be wiped off and the moving parts re-greased to ensure correct assembly and the use of the right type of grease. This may be done best at your local service station.

6½" — 7" — 7¼" — 8" CIRCULAR POWER SAWS



GENERAL INFORMATION

The portable circular power saws are quality built products. The life of the motor depends upon proper ventilation. Be sure the air holes are kept free from dust and sawdust accumulation. The swinging guard assembly should also be kept clean and dry to assure good operation and full protection. To inspect the motor brushes remove the rear cover of the motor housing. Replace the brushes when they are worn to the extent that the brush is visible in the window of the brush holder.

Ampere ratings (input) under normal circumstances should read between 9.0 and 13.0 Amps at 115 volts on a Circular Power saw to assure economical operation of the tool.

SELECTION AND CARE OF BLADES

KEEP BLADES SHARP. Dull blades produce poor cuts and **overload motor**. It is very important that the teeth be maintained in their original shape. Gullets must be kept uniformly deep. The teeth must be properly and evenly set. Refile face angle and back angle the same as that of the new blade.

Install the proper blade for the work to be done: — **RIP, CROSSCUT, COMBINATION, OR MITRE.** Make certain the teeth face in the direction of opening between the upper and lower guard. Hold saw firmly. Have blade revolving at full speed before it contacts material to be cut.

Do Not Force The Saw

To change the blade remove the center screw with the offset wrench provided, holding the blade with a pin or nail through the small hole in the blade, stopped against the saw base.

USE AND MAINTENANCE

The base of the saw is notched at the front right corner to help you to follow a line. The notches are in line with the inside of the blade with the saw at either 90° or 45° cut. You may cut 2x4 at 45° with ease. If you wish to operate the lower guard by hand as in the case of entry into the work from above the work surface, use the knob on the lower guard for **SAFETY**.

Occasionally add a few drops of light machine oil to the rear armature bearing of your saw. Expose the oil hole by removing the rear cover. For other lubrication detail check with your local authorized service station.

In the event long exacting cuts are to be made in plywood, masonite, pine or other material, insert the **RIPPING GAUGE** into the slot on front pivot bracket with scale facing up. Gauge should be to the right of saw blade. Adjust gauge to the desired width of cut by lining up the width mark on scale with edge of base. Tighten thumb screw. To operate hold gauge against one edge of board and make the cut keeping saw blade parallel to guiding edge of board.

SPECIAL PURPOSE TOOLS

THE ROUTER



GENERAL INFORMATION

Depth Adjustment

The Router is equipped with a micrometer depth adjustment. The blue ring is graduated to $\frac{1}{4}$ of $\frac{1}{64}$ of an inch, each mark on the ring measuring to this close tolerance. The tape rule located at the front of the router is graduated in $\frac{1}{32}$ of one inch, and this rule slides up and down in its channel for additional depth adjustment. By simply spinning the blue ring up from the base and adjusting the tape rule to the ring, you obtain an accurate measurement. The lever-lock located at the rear of the machine when loosened, will permit the motor to drop to the desired depth. This router is equipped with a spot light to illuminate the work area at all times.

Ampere ratings (input) under normal circumstances should read between 2.5 and 9.0 Amps at 115 volts on a Router, with a $\frac{1}{4}$ " chuck capacity, to assure economical operation of the tool.

POINTS TO REMEMBER:

- Always disconnect the motor before changing bits and cutters or making any adjustments.
- Keep fingers and hands away from revolving bits and cutters.
- Hold router firmly when turning on power to overcome starting torque of motor.
- Never insert anything into air intake or exhaust holes.
- Keep motor clean and air holes free from dust and dirt.
- Always keep router base flat on work surface—feed from left to right.

REMOVAL OF BITS

The Router is equipped with **one wrench** for quick removal of bits and cutters.

A shaft lock is provided on the switch lever, **press in**, and up (as arrow on switch indicates) this will lock the armature shaft while the bit is being removed from the chuck.

SELECTION AND CARE OF ROUTER BITS

The following operations can be done with the Router:—cutting a dado, spline joint, drop leaf table joint, dovetail, mortise and tenon, cutting a groove, rabbit cuts, inlaying, decorative cuts, moulding cuts, hinge butt and, templet routing, trimming arborite, formica, plastics, etc., and many other intricate operations. **Always keep bits sharp.**

Eaton's of Canada provide a wide selection of bits and cutters and will be pleased to counsel you on necessary requirements. Ask for other attachments which will convert this unit to a power plane, veneer trimmer, high speed grinder, and other special purpose applications.

BELT SANDER



GENERAL INFORMATION

The Belt Sander is just the right weight for most professional and amateur jobs, can be used in the cabinet shop, in the home, and utilized to remove old paint and varnish from most surfaces. Just the amount of power for the rough surface, or the fine removal of finished surfaces. All industrial firms that have a maintenance dept. will probably use power finishing tools such as the belt sander.

The Belt Sanders have a positive tracking adjustment assuring belt alignment at the turn of a knob.

Ampere ratings (input) under normal circumstances should read between 5.5 and 9.0 Amps at 115 volts on a Belt Sander — depending on the size of belt to assure economical operation of the tool.

SELECTION AND CARE OF SANDING BELTS

The efficiency of your belt sander depends on the proper selection and use of the right abrasive belt, use aluminium oxide for power sanding of wood and metal and silicone carbide abrasives on material such as marble, stone, glass, etc. Use only good quality cloth backed belts, these are available coated two ways, open and closed. Use the open type coarse abrasive for operations such as roughing soft pine, removing old paints and finishes or for sanding non-ferrous, metals such as aluminum. The close type is preferable for use on hard wood, steel and plastic. Since grain is not present in metal, plastics and stone use a sweeping rotary movement which overlaps every stroke to produce an even surface, never use oil or other coolants, because the belt will throw the liquid.

USE AND MAINTENANCE

Hold sander firmly. With motor running full speed, apply sander to the work with a forward motion. Let the back of the platen touch the work first, then bring the platen into full contact as the stroke moves forward.

The sander should be fed back and forth parallel to the grain of the wood. Do not apply heavy pressure on the sander as this will only reduce the speed of the sanding belt and cut down the rate of stock removal.

As the sander is fed back and forth over the surface, guide the sander sideways overlapping the strokes. Work the whole surface down evenly and do not let the sander dwell or a hollow will be made. Avoid tilting the sander when feeding as the belt will make a gash in the work.

Disconnect cord before changing belt. To retract and lock the front pulley, hold the sander by the two handles and stand it on the front pulley with the belt vertical. Push down until the front pulley is retracted and automatically locks.

With the sander lying on its side, the belt can be removed easily. Hold new belt so that arrow printed on the inside of belt points in the same direction as arrows on data plate. First, slip the belt over the front pulley, then over the rear pulley.

To release the front pulley, rest the heel of the right hand on the front of the platen. Extend the fingers around and up over the front pulley and pull down.

Turn the machine upside down and rest the front handle on the edge of a bench. Hold switch handle in left hand and start motor. Adjust tracking adjusting screw, located on right side of machine, by turning it in required direction so that belt runs flush with outer end of rear pulley. Turning the tracking adjusting screw clockwise will move the sanding belt to the outer edge of the pulleys. Turning the tracking adjusting screw counter-clockwise will move the sanding belt toward the inner edge of the pulleys.

Caution: Always disconnect cord before performing maintenance.

A periodic maintenance and cleaning program is recommended to keep your Belt Sander in top condition, consult your local service station.

ALL PURPOSE SAWS



GENERAL INFORMATION

The All Purpose Saw is a powerful, single-speed, lightweight tool used for all kinds of general sawing applications. It is used by plumbers, electricians, carpenters and home craftsmen for making pocket cuts, scrolls, template cutting, trimming wood, metal, plastics. It is further used by general contractors and auto body repair shops as a Power Hack saw. The tool is vibration-free.

Perfect balance of exclusive counter weight action results in powerful, smooth cutting.

Five position handle allows operator to adjust tool to optimum working position in confined locations. Blades hold tight because of an exclusive blade clamping arrangement and can be mounted in six different positions for regular or flush cutting. Shoe adjusts in two positions for both regular and exclusive vertical or horizontal flush cutting without additional attachments.

Ampere ratings (input) under normal circumstances should read between 2.5 and 5.0 Amps at 115 volts on All Purpose saw to assure economical operation of the tool.

SELECTION OF BLADES

Satisfactory performance depends on careful selection of the correct blade for the material you are to cut. Eaton's provide a wide selection of blades and will be pleased to recommend the type of blade you require for any particular job.

It is most important to use sharp blades. Dull blades will slow the work and may damage the tool by overloading the motor. Most blades are positioned at a 3° angle for tooth clearance on the forward stroke, which prolongs blade life and increases cutting speed.

For smoothness of cut use 3 $\frac{5}{8}$ " long blades for wood up to 2" thick, 6" long blades for wood up to 4" thick. Edge hardened blades are recommended for plywood and where nails may be encountered. Always keep extra blades on hand to use when blade becomes dull. Disconnect power when changing blades.

USE AND MAINTENANCE

Material to be cut should always be rigid. The up and down stroke action of this tool makes cutting easier, therefore, the saw should not be forced. Forcing will not help to cut faster. When flush cutting, use blade clamp and tighten screws firmly. Hold saw firmly on its base and use the shoe as a guide. When cutting metal put a few drops of oil on the blade and rock the saw during cutting. When cutting "arborite" or similar materials avoid excessive vibration and always cut on the reverse side of the finished material to leave a smooth and clean cut. To cut and follow a marked line, hold the saw with the auxiliary handle towards you, then slightly tilt the saw from its vertical position and cut away from you.

To make plunge cuts, shoe should be in the DOWN position. The shoe should be adjusted in the UP position for all flush cutting.

Check brushes regularly. Lubricate plunger, gears, counter weights after every 50 hours of operation. Double gear mechanism should always be properly timed for minimum vibration. This may be checked with timing arrows on gears.

Arrow heads on each gear should be facing each other exactly.